PROCEEDINGS
OF THE
SIXTH SYMPOSIUM
ON THE
NATURAL HISTORY OF THE BAHAMAS

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Bahamian Field Station, Ltd.
San Salvador, Bahamas
1996

Cover Photo: Dr. Lynn Margulis, Symposium Keynote Speaker, describes the structure and ecology of living stromatolites. Some, visible as grayish mounds near her feet, line the shore of Storrs Lake whereas others occur farther out in deep water. (See paper by D. C. Edwards, this volume).

Back Cover Photo: Group photo of the 6th Symposium participants and speakers.

Photos by Paul Godfrey (Computer processed prints by Lanny Miller).

Printed in USA by Don Heuer

ISBN 0-935909-60-5

RESOLUTION OF THE 6TH SYMPOSIUM ON THE NATURAL HISTORY OF THE BAHAMAS

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INTRODUCTION

For ten years the Bahamian Natural History Symposium has been meeting on the island of San Salvador. At the 1995 meeting, as we thought back over those ten years of exciting discoveries and happy interactions, we began to wonder whether there was any way in which we could express our appreciation of the island.

Even after years of association with San Salvador, we continue to be amazed that this earliest point of contact with the flood of humans from the Old World is still a place of superb natural habitats, while elsewhere vast areas of the New World have been completely altered, many of them in our own lifetimes. Sometimes San Salvador seems like a floating island, riding serenely on the waves of change that batter much of the world to the west. Perhaps these sentimental impressions should be documented. Perhaps the best way we can show our appreciation of San Salvador as an island of natural treasures is to make it easy for others to appreciate those treasures.

SCIENTIFIC DOCUMENTATION OF THE NATURAL HISTORY VALUES OF SAN SALVADOR

We are not thinking in terms of huge grant-supported programs, using all the most recent technology and army of scientists. We are thinking more along the lines of continuing many of our individual projects that are already in progress, but with a better understanding of the way these projects fit together and of their usefulness to San Salvador.

One of the most basic features to document about any natural area is its biodiversity, and we should expand and intensify our push to catalog the organisms that live on San Salvador. Some of this has already been done. There is, for example, a published list (with notes) of 524 species of vascular plants found on San Salvador; this list is the patient work of the late Robert Smith. We know that such a diversity of plants usually means that there is a correspondingly large number of animals. With 524 species of plants, there should be several thousand species of animals (most of them arthropods), but documentation of the fauna of San Salvador is just beginning. The marine habitats must also contain thousands of species, of which there are also partial lists. Although simple lists of species may seem uninteresting, their cumulative impact could be impressive and inspiring as one begins to realize the multitude of kinds of moving parts in the organic machine that we call San Salvador.

An important and useful product of biodiversity studies is that they immediately show that most species of an area are not uniformly distributed, but concentrated in their own special patches of habitat. This allows the biologist to quickly locate habitats that are unusual for an area, and therefore deserve special attention. Thanks to the studies of coral reef organisms and terrestrial plants on San Salvador, it is already possible to identify some habitats that only occur in a few places, such as cattail marshes, and coastal strands with sea oats. Even with the information available now, it would be possible for a group of biologists to put together a list of rare or particularly vulnerable habitats on San Salvador.

Biodiversity is most easily expressed as numbers of species, but this is only a shorthand way of expressing the more fundamental meaning of biodiversity, which is the diversity of relationships that species have with each other. Just as the human titles of "math teacher" or "auto mechanic" imply a

whole series of relationships and human interdependencies, so each biological species has a series of relationships that it fulfills in its specialized professional capacity. Since San Salvador has a flora and fauna that must total thousands of species, each having multiple relationships with other species, the diversity of relationships, the real functional biodiversity of San Salvador must be staggering, and is not likely to be understood for centuries. Nevertheless, even in initial studies of biodiversity it is important to have at least a few studies of ecological relationships that are symbolic of the fact that biodiversity is a matter of intricate relationships. There are already several studies that show these kinds of relationships, and more, such as studies of pollination, are in progress.

Finally, the biodiversity of San Salvador should be put in some kind of global perspective. Although this seems an impossible task given the dimension of biodiversity on the island, enough is already known of the organisms on the island that we can show the major patterns with respect to other Bahamian islands, the islands of the Caribbean, and the mainland areas of the Caribbean. Included in this perspective must be the geology and the history of human societies on the island. Both these topics have received considerable attention on San Salvador.

MAKING THE NATURAL VALUES OF SAN SALVADOR EASIER TO APPRECIATE

Here again, there is no way in which a loosely federated group of biologists, no matter how enthusiastic, can quickly assemble all the things that might be desirable, such as comprehensive guides to the flora and fauna, or professional films, or big books of photographs that would make everybody aware of the natural values of San Salvador. There are, however, some simple projects that are also practical.

1) We may know only a small fraction of what there is to know about the natural history of San Salvador, but a small fraction of something that large can be a lot. Much of the scientific work relating to San Salvador has been published in specialized reports scattered through the scientific literature. We have not yet made the effort to put together what is known in a readable synthesis, but we could do this, so the general patterns of biodiversity, habitats, geology, and archaeology of San Salvador all would appear in one place. This might be useful not only as a background information for residents of the Bahamas and visitors to San Salvador, but also for use in planning the wisest way to use natural values of the island.

2) While a big book of nature photographs of San Salvador may be beyond our resources, many of us have slides, which might be combined into a film strip or slide presentation with narration, that could be used as an educational tool.

3) The Bahamian Field Station already has a nature trail for visitors, but it would be improved by addition of a number of posts and a leaflet that would explain what is to be seen at each post. Setting up interpretive nature trails takes some time, but it is not expensive. We could probably help set up trails at schools or resort areas. If there were a series of trails in various parts of the island that showed different things, they would become the basis of an historical and natural history tour program, if there were residents of the island willing to run the tours.

4) As groups of organisms on San Salvador become better known, we could prepare easy-to-use natural history guides. Such guides are already available for common plants and common birds.

5) For scientific work on most groups of organisms, especially invertebrates and plants, a collection of identified specimens is a necessity. The nucleus of such a collection has been set up at the Bahamian Field Station. This collection could be expanded and a duplicate collection set up at the College of the Bahamas. Although this may not seem exciting to the general public, it could attract more scientists to San Salvador because there are so few

research sites in the Neotropics where it is possible for visiting scientists to identify more than a tiny fraction of the organisms encountered in any ecological study.

CONCLUSION

We can only offer what is in our power as a group of naturalists. What we can offer is a concerted effort to begin to document the biodiversity and natural history of San Salvador, and present this knowledge in a way that makes it easy for others to use. Because this is a reasonable goal and San Salvador is not a very big island, it should be possible to make obvious progress in a year or two.

San Salvador is not a large island, nor is it economically important, and its natural habitats, while spectacular, are no more so than many other Bahamian islands. San Salvador does, however, have enormous symbolic importance as a crucial point of contact between the Old and New Worlds. There is a saying about human endeavors that we must begin as we mean to go on. Many historians maintain that the Columbian explorations began with destruction and slavery; and the Europeans in the New World went from there. This is not quite true. The *first* moments of contact with the New World, on San Salvador, were filled with wonder and awe and gratitude. *That* is where humanity should go on from. San Salvador is the perfect place to renew contact with the natural world that is mankind's ancestral home and which continues to sustain us both physically and spiritually.